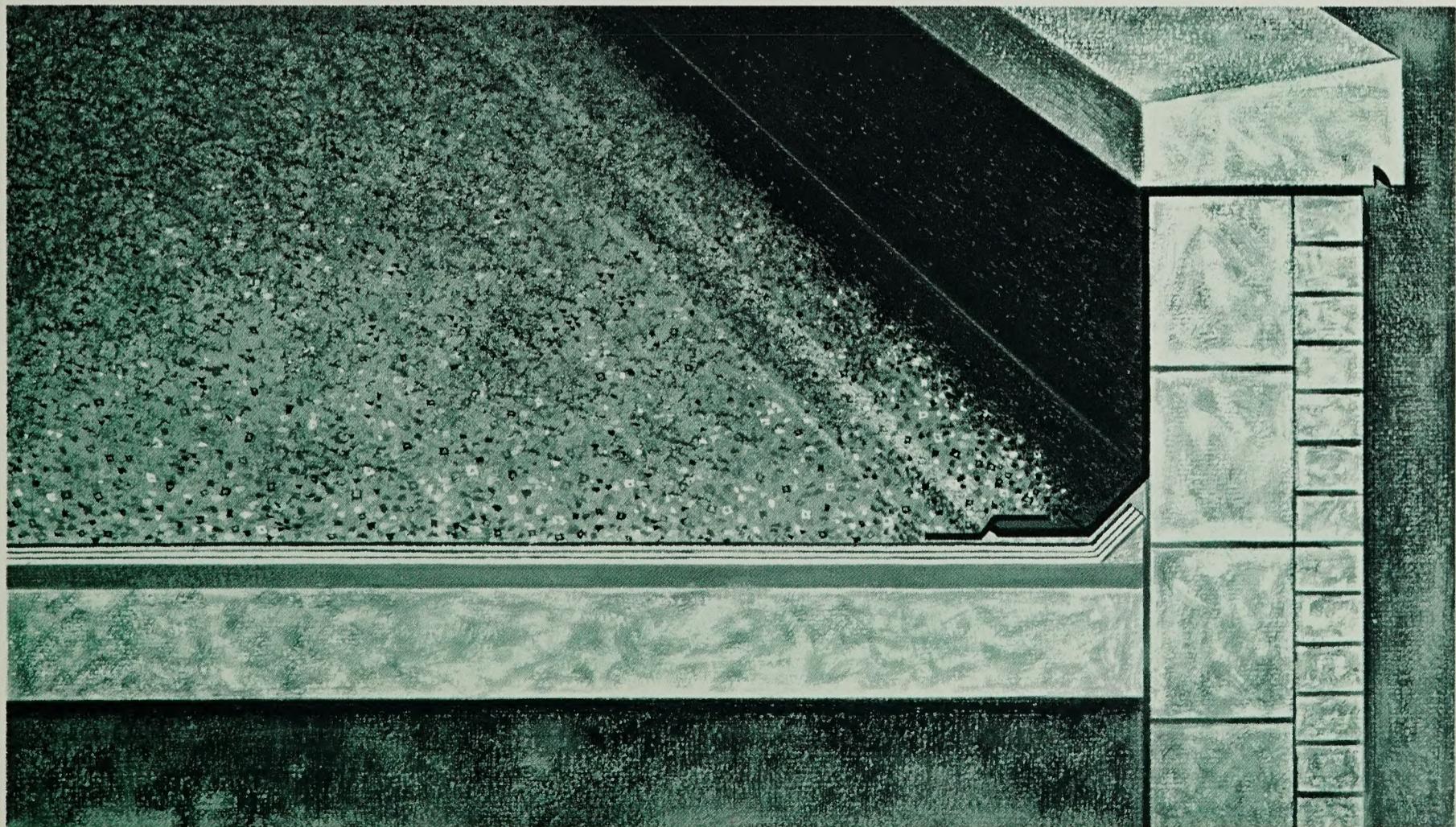


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MAY 1963

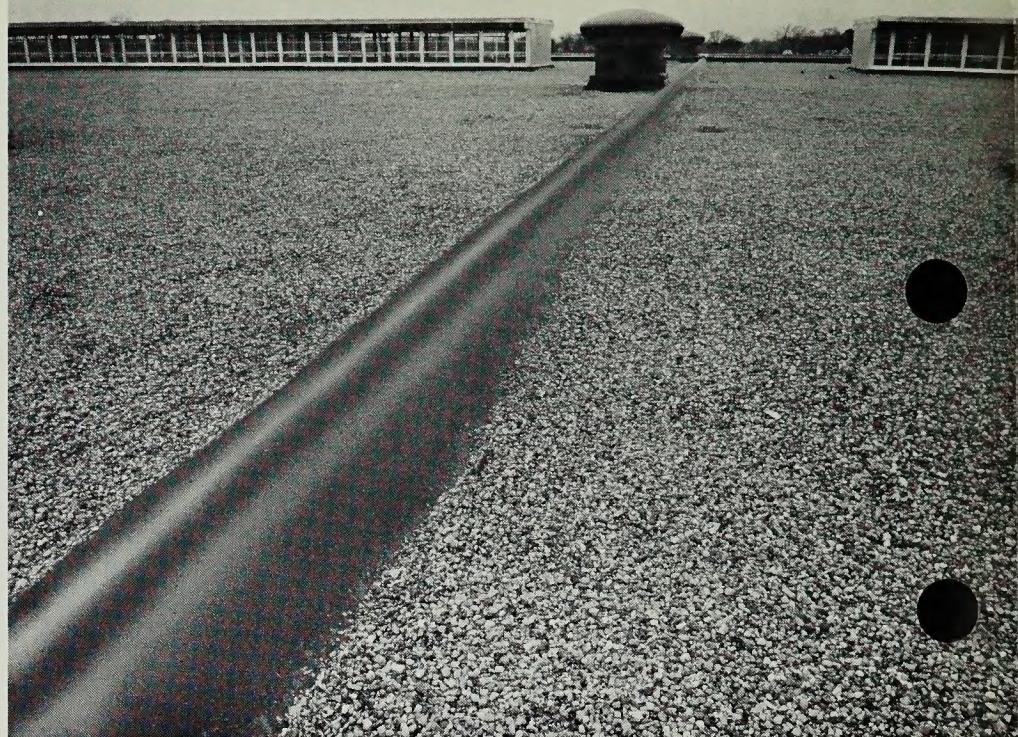
# SARALOY® 400

## flexible weatherproof roof flashing

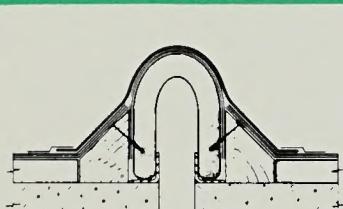


Roof expansion joint of Saraloy and Ethafoam (before paint application).

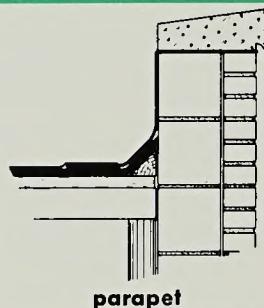
# Saraloy 400



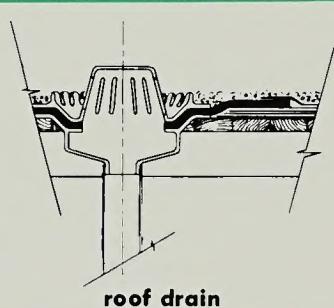
## elastic flashing that conforms to any contour



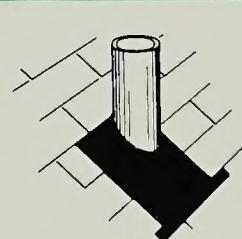
insulated expansion joint



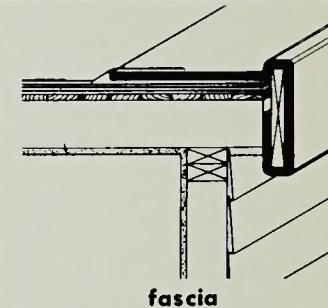
parapet



roof drain



vent stack



fascia

Years of extensive testing by The Dow Chemical Company have resulted in the development of Saraloy 400 flexible sheet flashing based on a copolymer of vinylidene chloride. This revolutionary material exhibits a combination of desirable properties not found in any other flashing material.

### elastic flashing

- **water and weatherproof** Saraloy 400 flashing has outstanding outdoor weathering characteristics. It does not corrode, check, crack, or peel.
- **elastic** Expands and contracts with the materials to which it is attached.
- **easily installed** Saraloy 400 flashing can be readily applied to standard construction materials using recommended adhesives or bitumens.
- **solvent weldable** Saraloy 400 flashing can be easily joined to itself by solvent activation.
- **flame retardant** Saraloy 400 flashing is classified as self-extinguishing by ASTM test methods.
- **pliable** Conforms easily to most configurations, including irregular shapes.
- **easy to paint** Although it is supplied in black only, Saraloy 400 flashing can be painted with outdoor oil base paint to match any color scheme.

• **low cost** Saraloy 400 flashing is competitive in installed cost with other flashing materials, but its cost per year of service is much less because it lasts longer and costs less to maintain.

• **accepted** Approved by the Uniform Building Code and Southern Standard Building Code. Building Code approval in such cities as New York, Detroit and Los Angeles. FHA Materials Release issued.

### physical description

Saraloy 400 flashing, a dense, flexible sheet, is available in rolls 12", 18", 24" and 36" wide, as well as specially fabricated pre-cut vent stack flashings. Nominal sheet thickness is  $\frac{1}{16}$ ". Available in black only, Saraloy 400 can be color-keyed to any installation with ordinary exterior oil base paint.

### conveniently packaged

Saraloy 400 sheet flashing comes packed as a single roll in a heavy carton. Store it at room temperature, right in the shipping carton; keep the carton on its side so that Saraloy 400 comes out in a smooth sheet. Pre-cut vent stack flashing sheets for 2", 2½", 3" and 4" diameters are available and packaged 12 to a box.

Adhesives and solvents used with Saraloy 400 are highly volatile and flammable. Follow good ventilation and fire practices when making interior installations, and keep these adhesives and solvents out of contact with eyes and skin.

## applications

Elasticity, which insures against failure due to expansion and contraction, makes Saraloy 400 ideal for every type of flashing need:

- **Fascia**
- **Vent stacks**
- **Roof drains**
- **Pipe entries**
- **Corrugated panels**
- **Ventilator bases**
- **Ridges and valleys**
- **Expansion joints**
- **Base flashing**
- **Shower pans**
- **Waterproofing membranes**

### NOTICE

The information in this booklet is presented in good faith, but no warranty is given nor is freedom from any patent, owned by The Dow Chemical Company or by others, to be inferred.

## general roof flashing specifications

### A. SCOPE—

This includes flashing of . . . (select suitable terms, i.e.—roof vents, drains, sumps, ventilator bases, fascia, pipe entries, expansion joints, chimneys, valleys, etc.) and any flashing implied or labeled on the architect's drawings. All work will be completed to the satisfaction of the inspecting architect. Consult flashing material manufacturer for technical information and installation instructions. Use only those adhesives and solvents recommended by the flashing material manufacturer.

### B. MATERIALS—

**1. Flashing**—Saraloy 400 elastic flashing, nominal  $\frac{1}{16}$ " thickness, as manufactured by The Dow Chemical Company, Midland, Michigan.

Saraloy 400 has a maximum recommended continuous use temperature of 175°F., and, therefore, is not suitable for direct contact with hot vent pipe or steam lines.

**2. Adhesive**—Dow Adhesive 400 as supplied by The Dow Chemical Company. If too thick for easy application, the adhesive may be thinned to a maximum ratio of 1 part methyl ethyl ketone (MEK) to 4 parts of adhesive.

**Exception:** All porous surfaces, such as masonry and wood, should first be primed with a 50-50 mixture of MEK and adhesive prior to the application of the adhesive in the normal manner.

**3. Solvent**—Methyl Ethyl Ketone (MEK)

Any commercial standard grade of MEK may be used. The use of any less pure grade of MEK will result in inadequate bond strengths. MEK must be kept dry and free of contaminants (such as adhesives from cleaning brushes, dirt, grease, oil, paints, etc.).

**4. Mastic**—Fibrated asphalt plastic flashing cement.

**5. Bitumen**—Any commercially available asphalt or coal tar product normally used for the installation of built-up roofing. Follow manufacturers' recommendations throughout.

**6. Mechanical Fastening**—Treated wood strips, metal angles, channels, bars, matching corrugated or ribbed strips, or equivalent with a maximum piece length of 4'. Attach with suitable fastening devices spaced on maximum 8" to 12" centers.

**7. Heat Source**—Blow torch, infrared heat lamp, or hot air gun, must be used to complete all MEK and Saraloy 400 adhesive joints as well as at all bends in the flashing of 90° or more. Use caution when working with open flame near solvent or adhesive containers. Do not overheat or scorch the flashing.

### C. INSTALLATION—

**1. General**

- a. Be sure that flashing and surfaces to be flashed are clean and dry.
- b. On all MEK and adhesive joints wipe the Saraloy surfaces free of powder with a dry cloth or one moistened in MEK.
- c. In every case, adhesive bond widths and other Dow specifications must be rigidly adhered to.
- d. Saraloy 400 must be painted with a good exterior grade white or aluminum paint where exposed in Southern areas.
- e. Heat should be applied to the Saraloy when making bends of 90° or more.
- f. When applying Saraloy against a vertical surface, the top edge must be secured mechanically. The flashing should be keyed two inches into a mortar joint, inserted into a reglet, or placed under a counter flashing or coping stone in the conventional manner whenever practical during construction. If these techniques are impractical, see Technical Data Sheet 7-5 which describes an alternate mechanical fastening method.
- g. Mechanical fastening is required on all horizontal exposed edges when bonding to ribbed and corrugated surfaces.
- h. Overlapping seams should always be made so as to shed water.
- i. When Saraloy is used in an application where a significant amount of movement is expected, use an expansion joint as detailed on Technical Data Sheet 7-2 and Technical Data Sheet 7-4.

**2. Bonding to Itself.**

Only MEK solvent can be used when Saraloy is to be bonded to itself. Clean faces to be bonded by rubbing with a clean cloth or one moistened with MEK. Then scrub both surfaces with a cotton cloth or bristle (natural or metal) brush, moistened with MEK. Press the surface together while both are still tacky. Allow at least a 2" overlap for solvent bonding. Always use pressure and a heat source to complete all MEK joints. Do not overheat or scorch the flashing.

A good joint can be assured if numerous small strings of Saraloy are visible when a freshly made joint is peeled open.

**3. Bonding to Built-up Roofing Surfaces.**

**With Hot Bitumen:**

Mop area to be flashed with hot bitumen following the bitumen manufacturers' instructions. Roll the Saraloy into the hot bitumen, taking care not to trap air under the sheet. Minimum bond width should be 6". Mop back over sheet edges and strip with roofing felt. Be sure that Saraloy is fully supported under areas being mopped with hot bitumen to prevent softening and thinning of the sheet.

**With Mastic:**

If it is not convenient to install with hot bitumen, Saraloy flashing may also be applied with mastic. Lay the Saraloy flashing into  $\frac{1}{8}$ " bed of mastic, taking care not to trap air under the sheet. The minimum bond width should be 6". Trowel back over the exposed edge of the Saraloy and strip with felt.

**4. Bonding to Common Building Materials:** Concrete, masonry, wood, metal, cement asbestos board, reinforced fiberglass, etc.

**With Adhesive:**

Wipe the talc from the surface of the Saraloy to be bonded. Prime all porous surfaces, such as masonry and wood, with a 50-50 mixture of MEK and adhesive. Apply full strength adhesive to both surfaces being joined. When the adhesive is dry to the touch, press the flashing firmly in place, heat conforming when necessary to obtain full contact. Work across the flashing from a corner or edge to avoid trapping air. If the adhesive becomes too dry and does not bond well upon application, reactivate the adhesive by wiping with an MEK saturated rag. Always use pressure and a heat source to complete all adhesive bonds. Do not overheat or scorch the flashing. A 4" minimum bond width to smooth surfaces and a 6" minimum bond width to rough or porous surfaces are required. When bonding Saraloy flashing to treated wood or treated masonry, auxiliary fastening is necessary. Blistering can occur over some treated surfaces.

On vertical surfaces, follow recommendations given under paragraph C, 1-f.

**With Mastic:**

Place the Saraloy flashing into a  $\frac{1}{8}$ " bed of mastic, taking care not to trap air under the sheet. The minimum bond width should be 6". On horizontal surfaces, trowel back over the exposed edge of the Saraloy and strip with felt. On vertical surfaces, follow recommendations given under paragraph C, 1-f.

**5. Heat conforming to irregular surfaces including corrugated and ribbed materials.**

Only Dow Adhesive 400 may be used when heat conforming Saraloy to irregular surfaces. The flashing must contact the entire area. Soften the Saraloy with a heat source to allow it to conform with only slight hand pressure (180°—200°F.).

Follow recommendations given under paragraphs C, 1-f and 1-g. Follow Dow Adhesive 400 recommendations as given under "Bonding to Common Building Materials."

### WATERPROOFING MEMBRANE—

Saraloy 400 is an excellent material for a waterproofing membrane, located between a structural slab and a wearing surface. Examples of this are parking decks, promenade courts, driveways, etc.

Its combination of properties provides many advantages not available with any membrane material or system used to date. Contact your local Dow Building Products representative for detailed information on application.



# TECHNICAL DATA SHEETS ON SARALOY 400

## DETAILS AND SPECIFICATIONS

(AVAILABLE ON REQUEST)

NUMBER	SUBJECT
7-1	Shower and Safe Pans
7-2	Roof Expansion Joint Cross Section
7-3	Solvent Joining of Saraloy
7-4	Roof Parapet Wall Expansion Joint
7-5	Base Flashing Utilizing Mechanical Fastening Device on Vertical Surface
7-6	Roof Expansion Joint Cross Intersection
7-7	Outside and Inside Intersection of Parapet Wall-Roof Expansion Joint
7-8	Intersection of Roof and Roof-Wall Expansion Joints
7-9	Turn-Up of Roof Expansion Joint into Wall Joint
7-10	Wall Expansion Joint
7-11	Roof Expansion Joint Ending at Parapet Wall
7-12	Turn-Down of Roof Expansion Joint into Wall Joint
7-13	Joint Termination at Gravel Stop and Fascia

### data chart

PROPERTY	Tensile Strength psi	Moisture Vapor Transmission (perms.)	Specific Gravity	Flammability	Recommended use temp. (°F.)	Color	Composition	*Chemical Resistance
TEST METHOD	ASTM D-412-51T	ASTM E-96-53T	ASTM D-792-50	ASTM D-568-56T				
AVERAGE VALUE	1000	0.104	1.50	Self-extinguishing	-20 to +175	Black	Copolymer of vinylidene chloride	Good

\*Saraloy 400 withstands the corrosive action of most acids, alkali, and solvent fumes encountered in industrial areas where metal flashings often fail.

### Other Dow Building Products

See Sweet's 1963 Catalog Files	Plant Engineering Catalog File	Industrial Construction Catalog File	Architectural Catalog File	Light Construction Catalog File
Building Insulation			10a Do	4a Do
Low Temperature Insulation—Styrofoam®		10b Dox	10b Dox	
Low Temperature Insulation—Thurane®		10b Do	10b Do	
Pipe Insulation—Styrofoam®	9a Dow	10b Dow		
Pipe Insulation—Thurane®	9a Doy	10b Doy		
Roofmate® and Roofmate® FR	11c Dow	8a Dow		

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CAMDEN 2, New Jersey . . . . . 400 Market Street  
CHARLOTTE 2, North Carolina . . . . 200 South Tryon Street  
CHICAGO 48, Illinois . . . . . 6000 W. Touhy Avenue  
CINCINNATI 6, Ohio . . . . . 2330 Victory Parkway  
CLEVELAND 13, Ohio . . . . . 55 Public Square  
DALLAS 1, Texas . . . . . 1505 Elm Street  
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MINNEAPOLIS 3, Minnesota . . . . 1750 Hennepin Avenue  
NEW ORLEANS 12, Louisiana . . . . 1100 Commerce Building  
NEW YORK 20, New York . . . . . 45 Rockefeller Plaza  
PITTSBURGH 22, Pennsylvania . . . . Four Gateway Center  
ST. LOUIS 5, Missouri . . . . . 10 South Brentwood Blvd.  
SAN FRANCISCO 6, California . . . . . 350 Sansome Street  
SEATTLE 1, Washington . . . . . 307 Broad Street

DOW CHEMICAL OF CANADA, LIMITED  
General Offices and Plant—Sarnia, Ontario



**THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN**